

11-26-23

Memorandum For Forest Supervisor
Coeur d'Alene National Forest.

Re - Mountain Pine Beetle Infestation In White Pine Stands On The
Coeur d'Alene National Forest.

During the months of July and August 1923 an extensive reconnaissance was made by the writer over a greater part of the white pine stands on the Coeur d'Alene National Forest. The purpose of this examination was to ascertain as near as possible the loss resulting to the white pine caused by the 1922 attack of the Mountain pine beetle. In the drainages where no logging operations have been conducted, the general average D.B.H. of the trees attacked in 1922 was 20". On the logged areas quite a number of seed trees were found that had been attacked and killed, particularly along the Little North Fork between Cascade and Barney Creeks and on the Big Creek flats. During the period October 1st. to 6th. 1923 an intensive cruise was made over a portion of the area and the results of this examination used as a correction factor applicable to the entire stands of white pine. A conservative estimate of the loss to the white pine based on the results of the examinations is as follows.

*Total stand of white pine (All ages)	150.002 Acres
Total volume of " " " "	1.500.000.000 B.F.

Total number of trees killed by 1922 attack (All ages)	6.120
Total volume " " " " " " " "	3.060.000 B.F.
Total stumpage value @ \$7.50 Per. M	\$22950.00

1922 loss estimated at 2/10 of 1% of total volume.

* Supplied by Forest Service.

Forwarded by letter 11-26-23 from Mr. Evenden.

The infestation appeared to be in a normal condition throughout the area examined and consisted of both small groups of three to six trees and individual trees, the groups invariably being near trees killed by previous attacks. Very few 1923 attacked trees were seen during the examinations as the foliage on these trees still remained green.

Respectfully submitted,

Henry J. Ruck

Entomological Ranger.

Approved by

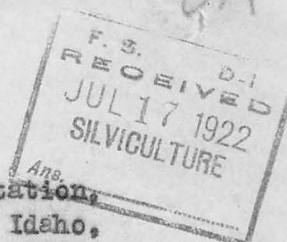
James E. Ender

Entomologist.

Forest Insect Field Station,
Coeur d'Alene, Idaho,
November 26, 1923.

*Insect Control
Blackfoot*

UNITED STATES DEPARTMENT OF AGRICULTURE,
Bureau of Entomology,
Washington, D. C.



Forest Insect Field Station,
Coeur d'Alene, Idaho,
July 14th, 1922.

MEMORANDUM - FOREST SUPERVISOR, BLACKFEET NATIONAL FOREST, MONTANA.

Re - Mountain pine beetle infestation in white pine stands.

Accompanied by Mr. Ellis, Forest Assistant, Blackfeet National Forest, an examination of a white pine stand on Clarence and Stahl Creeks, T. 36 N. R. 25 W., was made on May 31st, 1922. On this area there is an infestation by the mountain pine beetle (*Dendroctonus montivola*) which has increased during the past three or four years to a condition above a normal status, approximately one and one-half percent of the total volume having been killed by the 1921 attacks.

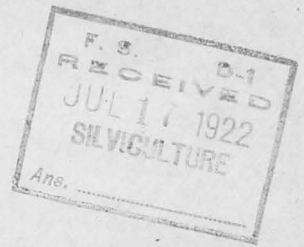
As this area is remote from any logging operation there is a strong possibility that this condition will develop into a serious epidemic and a large percent of the timber destroyed during the next few years. As an ideal time for forest insect control is when the first signs of an increase from an endemic to an epidemic condition appears, under ordinary circumstances control measures should be inaugurated in this area at once. However the writer feels that in considering the thoughts of control for this infestation, that there is a question relative to the value of the present stands as compared to the cost of protection, which should be answered by the Forest Service. The reason for the presence of this question is that the timber is of a low grade due to fungus attack, and that the area is apparently inaccessible for logging at the present time.

In the event of the Forest Service deeming this area to be of sufficient value to support the cost of control, the writer will make a further, and intensive examination of the region for the purpose of outlining a forest insect control policy.

Respectfully submitted,

James C. Evenden
James C. Evenden,
Assistant Entomologist.

UNITED STATES DEPARTMENT OF AGRICULTURE,
Bureau of Entomology,
Washington, D. C.



Forest Insect Field Station,
Coeur d'Alene, Idaho,
July 14th, 1922.

MEMORANDUM - FOREST SUPERVISOR, BLACKFEET NATIONAL FOREST, MONTANA.

Re - Mountain Pine Beetle infestation in lodgepole pine stands.

Accompanied by Mr. Ellis, Forest Assistant, Blackfeet National Forest, the writer made of examination of the upper Fortine, Swamp, and Sunday Creek watersheds on May 28th and 29th, 1922.

The heaviest infested area is on the Swamp Creek drainage, where there are thousands of lodgepole pine trees which contained the 1921 brood of the mountain pine beetle (*Dendroctonus monticolae*). Nearly all of the trees above six inches in diameter have been killed during the past three or four years. On Fortine and Sunday Creeks, the damage is not quite so severe, but where ever there were mature lodgepole pine stands the mountain pine beetles were present and the corresponding losses were very heavy. This condition was also present along the Great Northern R.R. right of way and on Graves Creek, where on the higher elevations large patches of red topped trees were noted. Apparently, in this section of the forest, where ever there are stands of mature lodgepole pine there is also a more or less serious infestation. Statements from Forest Officers, point to a like condition on the Kootenai National Forest.

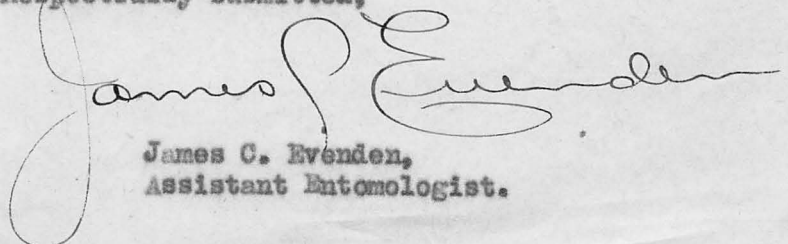
Though there has been many million board feet of lodgepole pine killed within the boundaries of this forest during the past three or four years, and unless the epidemic is checked and reduced to a normal status, there is a strong possibility that all of the mature trees will be killed in the next few years, there are certain points which must be considered with the thoughts of control. These points are as follows;

1. The approximate cost of control .
2. The value of the remaining timber protected.
3. The small percent of mature trees remaining in these areas.

4. The fact that the infestation is very rapidly decreasing in the heavily infested areas due to the want of suitable host material. (The broods of the mountain pine beetle can not develop successfully in trees under six inches in diameter, as the thin bark allow a to rapid drying)
5. Possible silvicultural advantages, such as the thinning of the stands with the possible recovery of the suppressed trees, and the restocking of the forest with more valuable species.
6. The ability of the infestation to spread into other areas of a greater commercial value. (This condition exists with the Blackfoot River infestation which has crossed the Continental Divide into the valuable stands of the Helena National Forest.)
7. The tremendous fire hazard which exists after a severe lodgepole pine infestation. The insect killed trees start falling in 4 to 6 years making fire suppression nearly impossible. This hazard will be present for at least twenty years, with the point of greatest danger in about 8 to 10 years following the kill.

These points have been weighed against each other with the result that the writer does not believe the remaining timber of the infested areas will support the cost of control. In making the statement that no control measures are recommended, it is necessary that it be qualified in as much as there may be uninfested areas of lodgepole pine, of which the writer has no knowledge, which have a sufficient commercial value to support the cost of protection from this epidemic. In the event of there being such areas they should be examined and a plan of control outlined. Furthermore as there will be a normal infestation existing in these areas after the epidemic has died down, which will be carried in the few remaining trees of suitable diameter, there is no doubt but that as soon as the understory has recovered sufficiently for host material there will be another epidemic. Therefore, though no control measures are recommended at this time, it is hoped that these devastated areas will receive additional protection both for fire and insect damage.

Respectfully submitted,


James C. Evenden,
Assistant Entomologist.